

**BY ORDER OF THE COMMANDER
CANNON AIR FORCE BASE (AFSOC)**



AIR FORCE INSTRUCTION 32-1002

**CANNON AIR FORCE BASE
Supplement**

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Civil Engineering

SNOW AND ICE CONTROL

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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AFI 32-1002, 22 January 2015 is supplemented as follows. This supplement is applicable to all 27th Special Operations Wing (27 SOW) units that participate in and/or support snow and ice control operations. The purpose of this supplement is to provide effective Snow and Ice Control (S&IC) operations to enable the 27 SOW to perform its mission. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF Form 847, *Recommendation for Change of Publication*; route AF Form 847s through local publications/forms managers. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of in accordance with Air Force Records Disposition Schedule (RDS) located at <https://www.my.af.mil/afrims/afrims/afrims/rimc.cfm>.

SUMMARY OF CHANGES

This document was substantially revised and must be completely reviewed. Revisions were required to update policies and delete outdated information. Base office symbols were updated, releasability statements were added and a records management statement was added.

1.4. **(Added)** Base operations will comply with this instruction as much as possible, taking into account multiple missions and/or runway operations. The S&ICP should be flexible to allow for separate mission operations. Base priorities will be determined during the **S&ICC** meeting.

Note: To avoid misunderstandings among base agencies priorities can only be changed when routed through the Joint Planning Group (JPG) with approval from the Wing/CC and must be in the best interest of flight safety, base, and/or airfield mission requirements).

1.4.1. **Priority 1 (Red):**

1.4.1.1. **(Added)** – 04/22 or Alt. 13/31.

1.4.1.2. **(Added)** – Alpha, Romeo, Foxtrot, Delta (South), Hotel, Mike, and Echo.

1.4.1.3. **(Added-Alpha, Foxtrot, Romeo, Hotel, Delta (South) ,** Mike, and Echo.

1.4.1.5. **(Added)** Overpass to main base entrance, perimeter road, building 232X series complex, flightline access road, transient alert ramp and B575 parking.

1.4.2. **Priority 2 (Yellow):**

1.4.2.1.1. **(Added)** 04/22 or Alt. 13/31 (as directed from Airfield Management).

1.4.2.1.2. **(Added)** Bravo, Charlie, Delta (North).

1.4.2.4. **(Added)** Primary mission-essential facility parking lots (B848, B785, B790, B724 and).

1.4.3. **Priority 3 (Green):**

1.4.3.1.1. **(Added)** The privatized housing contractor has S&IC obligation on privatized family housing (PFH) streets. S&IC aid to the privatized housing contractor can be rendered via coordination through the MSG/CC or WG/CC.

2.4.1.1. **(Added)** Review and recommendation of the S&ICP is the responsibility of the Cannon AFB Snow and Ice Control Committee (S&ICC). The plan will follow the format established by AFI 32-1002. The Installation Commander has final approval of the base S&ICP.

2.4.1.2. **(Added)** This document will be written by the 27th Special Operations Civil Engineer Squadron, Heavy Repair Section, and finalized through the Cannon AFB S&ICC. All affected organizations will be allowed to review before it is finalized. This document will be reviewed yearly and updated as necessary.

2.4.4.1. **(Added)** The S&ICC chairperson identifies S&ICC working group members.

2.6.2.1. **(Added)** In order to activate the S&ICP, the 27 SOMSG/CC will call the 27 SOW/CP. The 27 SOW/CP will notify the following offices that the S&ICP is being activated:

2.6.2.1.1. **(Added)** 27 SOW/CC.

2.6.2.1.2. **(Added)** 27 SOG/CC.

2.6.2.1.3. **(Added)** 27 SOMXG/CC.

2.6.2.1.4. **(Added)** 27 SOMDG/CC.

2.6.2.1.5. **(Added)** 27 SOCES/CEOSC (Civil Engineer Service Call).

2.6.2.1.6. **(Added)** 27 SOSS/OSAA (Chief of Airfield Management).

2.6.2.1.7. **(Added)** 27 SOLRS/CC.

2.6.2.1.8. **(Added)** 27 SOMXS/CC.

2.6.2.1.9. **(Added)** 27 SOEMS/CC.

2.6.2.1.10. **(Added)** 27 SOAMXS/CC.

2.6.2.1.11. **(Added)** 27 SOMOS/CC.

2.6.2.1.12. **(Added)** 27 SOMOS/MXOOM (Maintenance Operation Center).

2.6.2.2. **(Added)** 27 SOCES/CEOHP will activate the Snow Control Center and begin the recall of snow removal personnel and augmentees.

2.6.3.5. **(Added)** Ensures adequate facilities, equipment, materials and personnel are provided for the implementation of the S&IC season.

2.6.3.6. **(Added)** Ensures adequate operator training programs are started and completed prior to the first snow or ice storm.

2.6.3.7. **(Added)** Appoints a Snow Control Officer (SCO) and Snow Control Noncommissioned Officer (SCNCO) to accomplish the mission as members of the S&IC Working Committee to work snow removal issues within the squadron.

2.6.3.7.1. **(Added)** Current SCO/SCNCO will appoint a SCO/SCNCO when absent.

2.6.3.7.2. **(Added)** SCO and SCNCO Coordinates with other base agencies on problems encountered by the snow removal team.

2.6.3.7.3. **(Added)** SCO and SCNCO Confirms that any out-of-service equipment reported by S&IC crew chiefs has been or is being repaired.

2.6.3.7.4. **(Added)** SCO and SCNCO Make recommendations for improvements of procedures and techniques of operation.

2.6.6.5. **(Added)** Will monitor local weather forecasts from the 27 SOSS/OSW.

2.6.6.6. **(Added)** Will activate the Snow Control Center and begin the recall of snow removal personnel and augmentees.

2.6.6.7. **(Added)** Will show coincidence in snow pile placement to avoid undue interference with personnel and vehicle movement.

2.6.6.8. **(Added)** Will be prepared to clear roads in housing areas in the event that the housing contractor fails to do so.

2.6.7.8. **(Added)** Ensures proper grades of fuels and/or additives are supplied to snow removal equipment.

2.6.8.4. **(Added)** Publishes an operating instruction outlining procedures for Security Forces to follow in expediting S&IC operations.

2.6.8.5. **(Added)** 27 SOCES/S&IC will notify BDOC Controller of the situation and inform them to attempt to contact with the vehicle owner. If vehicle owner cannot be reached or found, then the BDOC Controller will notify 27 SOLRS to have the vehicle towed to a secure location.

2.6.10.4. **(Added)** Ensures requested supplies and equipment in support of S&IC operations are procured in a timely manner.

2.6.10.5. **(Added)** Ensures all standby items requested by organizations in support of S&IC operations are procured in a timely manner.

2.6.12.6. **(Added)** Declares airfield surfaces operational or closed to flying operations.

2.6.12.7. **(Added)** Airfield Management Operations advises the SCO or SCNCO of alternate procedures to be used in the event of a flying emergency.

2.6.12.8. **(Added)** Control tower personnel shall closely monitor snow removal operations on the ramp, taxiways and runways. When the tower directs, the SCO/SCNCO/S&IC crew chief shall promptly remove all snow vehicles and equipment from the runways. The tower shall advise Airfield Management Operations (AM Ops) if any problems arise.

2.6.12.9. **(Added)** Coordinate with NAVAID Maintenance and 27 SOCES for snow removal requirements around NAVAIDS.

2.6.12.10. **(Added)** 27 SOAMXS, 27 SOMXS, 727 SOAMXS and 27 SOMOS: Ensure aircraft are moved according to SOMXG/CC directions.

2.6.12.11. **(Added)** Verifies snow is manually cleared from airfield facilities and the ramp immediately around all parked aircraft to a distance of 50 feet.

2.6.13.6. **(Added)** When adverse weather is expected, the 27 SOSS/OSW will advise the 27 SOW/CP.

2.6.15.3.4. **(Added)** Ensures all equipment is moved in a timely manner from areas where S&IC operations are to take place.

2.6.15.3.5. **(Added)** Bears responsibility for directing snow clearance within 50 feet of aircraft.

2.6.17.4. **(Added)** Requests Public Affairs to post notices on media resources requesting personnel to park vehicles off the streets wherever possible and post other safety notifications as requested.

2.6.18. **(Added)** List of Committee Members: The following individuals belong to the S&ICC membership: 27 SOW/CC, 27 SOMSG/CC, 27 SOMXG/CC, 27 SOG/CC, 27 SOW/CP, 27 SOCES/CC, 27 SOCES/CEO, 27 SOCES/CEA, 27 SOCES/CEOHP, 27 SOSFS/CC, 27 SOSS/CC, 27 SOSS/OSAA, 27 SOSS/OSW, 27 SOLRS/CC, 27 SOFSS/CC and 27 SOCS/CC.

2.6.19. **(Added)** SCNCO will:

2.6.19.1. **(Added)** Assigns snow removal crews and maintains a telephone alert plan for immediate recall.

2.6.19.2. **(Added)** Allocates duties and tasks to S&IC Crew Chiefs.

2.6.19.3. **(Added)** Ensures allocated areas for storage and directs cleaning of equipment.

2.6.19.4. **(Added)** Ensures winter marking of the airfield areas and roads is accomplished in accordance with current orders and instructions.

2.6.19.5. **(Added)** Ensures completion of equipment operating records, operator care and maintenance, and maintenance progress charts or maps.

2.6.19.6. **(Added)** Carries in the vehicle, tools and spare parts necessary for minor on-the-spot repairs and operator maintenance to vehicles or equipment. In addition, necessary spare tires, jacks, and lug wrenches will be available in the SOCES Heavy Equipment Section.

2.6.19.7. **(Added)** Prior to going off shift, reports progress/trouble areas to the crew chief taking over.

2.6.19.8. **(Added)** Reports progress of assigned work in writing and verbally to the supervisor in charge of S&IC prior to going off shift.

3.1.1.2.1. **(Added)** All SOCES personnel assigned to the Heavy Repair Section and all augmentees assigned to perform S&IC duties will be trained on the following: AFI 32-1002, *Snow and Ice Control* and AFI 32-1002_CANNONAFBSUP. Emphasis will be given to responsibilities, procedures and priorities.

3.1.1.8.1. **(Added)** In the event radio communication is lost and the runway must be cleared, the tower will flash the edge lights several times rapidly. This is a universal signal to clear the runway immediately.

3.1.1.8.2. **(Added)** Aircraft under power of their engine have the right of way in aircraft movement areas.

3.1.1.8.3. **(Added)** Snow removal vehicles will have the right of way during all severe winter weather storms.

3.1.1.13. **(Added)** Familiarization training on: (Training will be conducted prior to 15 September each year).

3.1.1.13.

1. **(Added)** Runways, taxiways and aprons.

3.1.1.13.2. **(Added)** Runway lighting system / Barrier system.

3.1.1.13.3. **(Added)** Roads, headers and culverts.

3.1.1.13.4. **(Added)** Crew chief duties.

3.1.1.13.5. **(Added)** Snow controller duties.

3.1.1.13.6. **(Added)** Forms and charts to be maintained during S&IC operations.

3.1.1.14. **(Added)** Refresher courses will be conducted for personnel who have received prior training or operational experience in S&IC operations.

3.2.9. **(Added)** Overhaul and repair of Air Force registered vehicles and Original Equipment Manufacturer assemblies is the responsibility of 27 SOLRS. User maintenance and storage is the responsibility of 27 SOCES/CEOHP.

3.2.10. **(Added)** During periods of cold weather, equipment will be started and run at least twice per week. Running time will allow each piece of equipment to reach operating temperatures and a function check will be performed. Diesel powered equipment with "regeneration" requirements will be run under load to prevent premature emissions equipment servicing. If the diesel engine has begun the regeneration cycle then the engine must continue to run until the regeneration cycle is complete.

- 3.3.1. **(Added)** All wear shoes and wheels, plow and attachment parts will be procured through the 27 SOCES COCESS system or IMPAC.
- 3.3.2. **(Added)** All new and replacement pieces of equipment, along with all liquid chemical deicers will be procured through the Air Force Logistics system.
- 3.3.3. **(Added)** All materials will be stored within the 27 SOCES Heavy Repair section compound.
- 3.3.4. **(Added)** Materials Required: The following materials are required to be in place by 15 September each year:
 - 3.3.4.1. **(Added)** 250 50-lb bags of salt (limited to other than airfield use).
 - 3.3.4.2. **(Added)** 7,000 gallons of potassium acetate liquid pavement deicer (E-36).
 - 3.3.4.3. **(Added)** 350 tons of coarse abrasive sand (limited to other than airfield use).
 - 3.3.4.4. **(Added)** 15 sets of tungsten carbide grader blades.
 - 3.3.4.5. **(Added)** 20 sets of tungsten carbide multi-purpose plow blades.
 - 3.3.4.6. **(Added)** 20 sets of truck mounted plow blades.
 - 3.3.4.7. **(Added)** 6 sets of broom poly bristles for truck mounted brooms.
 - 3.3.4.8. **(Added)** 6 sets of poly bristles for towed brooms.
 - 3.3.4.9. **(Added)** 5 sets of caster wheels for multi-purpose plows.
 - 3.3.4.10. **(Added)** 1 trip edge (moldboard) for each multi-purpose plow.
 - 3.3.4.11. **(Added)** Necessary bolts and shear pins to maintain operations.
 - 3.3.4.12. **(Added)** Necessary spare tires, jack and lug wrenches.
- 3.4.5. **(Added)** Obstructions requiring repairs will have a work order initiated to repair.
- 3.6.8. **(Added)** The SCC will be manned any time S&IC operations are in progress regardless if S&ICP is activated.
- 3.6.9. **(Added)** A log of all events will be maintained to include:
 - 3.6.9.1. **(Added)** Date and time of event.
 - 3.6.9.2. **(Added)** Names of controller and shift personnel.
 - 3.6.9.3. **(Added)** Weather forecast.
 - 3.6.9.4. **(Added)** Vehicles that break down and reason and status.
 - 3.6.9.5. **(Added)** Blade/broom core changes.
 - 3.6.9.6. **(Added)** Materials/quantity used to include potassium acetate, salt and sand.
 - 3.6.9.7. **(Added)** Any calls or visits (what was requested, who requested it, who responded and when completed).
- 4.2.1. **(Added)** Ensure all sidewalks and entrances to their facilities are clear of ice and snow.

4.2.2. **(Added)** Ensure snow is removed at a sufficient distance (50 feet or more) from their facilities to minimize damage from snow equipment. This includes the flightline access to aircraft hangars.

4.2.3. **(Added)** Procure snow shovels, ice scrapers, snow blowers, etc. in order to move snow.

4.2.4. **(Added)** Procure sufficient deicing chemicals to melt ice from the above surfaces.

4.2.5. **(Added)** Provide a container for the storage of abrasives, such as sand, to provide traction on ice.

4.2.6. **(Added)** Act as a focal point for the facility for matters concerning snow removal.

4.3.1.1. **(Added)** Potassium Acetate (Liquid – E36) is currently the only authorized pavement anti/deicing agent approved on Cannon AFB airfield pavements.

4.3.1.2. **(Added)** Potassium acetate deicers must meet Society of Automotive Engineers (SAE) and Aerospace Material Specifications (AMS) 1432 specs to be used.

4.3.1.3. **(Added)** Deicer chemicals are normally applied to aircraft movement areas only. However, it may be applied to other priority areas to support immediate mission requirements with approval from SCO or SCNCO.

4.3.1.4. **(Added)** Only the SCO or SCNCO may approve anti/deicing agent use. This is due to both the cost and nature of this material.

4.3.1.5. **(Added)** All applications of potassium acetate will be logged with the requester, date, time, location and who approved it.

4.3.1.6. **(Added)** This chemical is not allowed to be used to for deicing around buildings. In some instances, it may be used on base streets to control high interest areas.

4.3.1.7. **(Added)** Solid Potassium Acetate may be used as a deicer agent. Suggested uses include around buildings and under aircraft. It may also be used on base streets. It is up to the user to purchase this material.

4.3.1.8. **(Added)** Ethylene Glycol will not be used as a pavement deicing agent on Cannon AFB.

4.3.2.1. **(Added)** All deicing chemicals will be stored by the using organization.

4.3.2.2. **(Added)** Liquid deicers must be stored in a manner that meets environmental guidelines.

4.3.3.2. **(Added)** Dry deicer chemicals will be stored indoors in the original containers.

4.3.3.3. **(Added)** Liquid deicers will be dispensed using a deicing rig specifically built for that purpose. As an alternative to this rig, a water truck may be used in an emergency. If a water truck is used, it must be triple rinsed immediately after use.

4.3.3.4. **(Added)** For small areas, solid deicers may be spread by hand and a portable sprayer may spread liquids.

4.3.3.5. **(Added)** Anti-icing method should not be used on parking ramps. It should only be used on the centerlines of aircraft movement areas due to costs associated with chemical application. However, it may be applied to other priority areas to support immediate mission requirements as approved by SCO or SCNCO.

4.3.3.6. **(Added)** Any area where anti/deicing agent is used must first be cleared of all snow and ice as possible prior to deicing.

4.3.3.7. **(Added)** The area where the chemical is applied for deicing will not be touched until the chemical has time to soften the ice. Airfield Snow Removal Supervisor (Snow One) will make the determination when to broom or plow the treated area.

4.3.3.7.1. **(Added)** This cycle will be repeated until the area is clear of ice.

4.3.5. **(Added)** Use of abrasives.

4.3.5.1. **(Added)** Abrasives are not to be used on the airfield without approval from Airfield Management and Wing/CC.

4.3.5.1.1. **(Added)** Abrasives may be solely used to provide traction on aircraft movement areas under extreme ice conditions with approval from Airfield Management and Wing/CC.

4.3.5.2. **(Added)** The abrasive is applied to the surface of the ice and allowed to sit. Natural action will adhere the abrasive to the ice.

4.3.5.2.1. **(Added)** Heating the abrasive will allow it to adhere to the ice better.

4.3.5.2.2. **(Added)** Salt and sand may be placed on roadways after they are plowed.

4.3.5.3. **(Added)** Sand will normally be applied with salt. Exceptions include munitions storage areas and the entrances to the flightline.

4.3.5.4. **(Added)** Sand will be applied at a rate that prevents buildup of the material.

4.4.1. **(Added)** Snow removal vehicles will have the right of way during al severe winter weather storms. Snow removal vehicles may be required to drive faster than the posted speed limit and roll past stop signs in order to avoid becoming stuck during heavy snow and when snow has accumulated on the roads.

BENJAMIN R. MAITRE, Colonel, USAF
Commander

Attachment 3 (Added)
AIRFIELD PRIORITY MAPS

Figure A3.1. Snow Removal Priorities 04/22 Active.



Figure A3.2. Snow Removal Priorities 13/31 Active.



Attachment 4 (Added)**BASE SIDE STREET PRIORITY LISTING****A4.1. Priority 1 Roads.**

1. Ramp Offbase/Under Pass.
2. Main Gate (To include Vehicle inspection area/Visitor center area).
3. Chindit (Includes EOD/Fire Dept. Parking and transport lane/(Bld. 780) ROC parking 1).
4. Cochran (To include SF GOV. Parking area).
5. Levitow (To include (Bld. 848 and ROC parking 2).
6. Air Commando.
7. D. L. Ingram (To include EMT parking/transport lane).
8. Eagle Claw.
9. Arnold
10. West/East Aderholt (To include Portales Gate/Vehicle inspection area).
11. Afterburner (To include Maintainer Parking).
12. Ammo area.
13. Raptor.

A4.2. Priority 2 Roads.

1. Liberator.
2. Raven.
3. Engineer.
4. Road in-between of Bld. 22 & 684.
5. Hospital Parking POV.
6. CDC/Chavez CDC.
7. Cad. Bld. 2312.

A4.3. Priority Green Roads.

1. Kermit Evans.
2. Cunningham.
3. Alison.
4. Albright.
5. Levitow (Between 1900 & 1816).
6. All other parking areas.